

**THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

HUAWEI TECHNOLOGIES CO. LTD.,

Plaintiff,

v.

**T-MOBILE US, INC. and
T-MOBILE USA, INC.,**

Defendants,

**NOKIA SOLUTIONS AND NETWORKS US
LLC, NOKIA SOLUTIONS AND NETWORKS
OY, TELEFONAKTIEBOLAGET LM
ERICSSON, and ERICSSON INC.,**

Intervenors.

Civil Action No. 2:16-cv-00057-JRG-RSP

JURY TRIAL DEMANDED

**PLAINTIFF HUAWEI TECHNOLOGIES CO. LTD.'S
RESPONSE TO DEFENDANTS' AND INTERVENORS'
OBJECTIONS TO CLAIM CONSTRUCTION MEMORANDUM AND ORDER**

Defendants' and Intervenor's (hereinafter "Defendants") objections to Judge Payne's claim construction order fail to identify any cognizable error of fact or law. Instead, Defendants simply repeat the same arguments that Judge Payne previously considered and correctly rejected.

Given that Judge Payne's claim construction order is a non-dispositive issue, its review is subject to the "clearly erroneous [or] contrary to law" standard of Rule 72(a). *See* Fed. R. Civ. P. 72(a); *see also Calypso Wireless, Inc. v. T-Mobile USA Inc.*, No. 2:08-CV-441-JRG-RSP, 2013 WL 684741, at *2 (E.D. Tex. Feb. 25, 2013) (stating that review of claim construction orders is under the "contrary to law" standard) (J. Gilstrap), *aff'd sub nom. Calypso Wireless, Inc. v. Jimmy Williamson, P.C.*, 586 F. App'x 707 (Fed. Cir. 2014). Defendants fail to discuss the standard of review for their objections. Perhaps they ignore this critical aspect of their objection because Judge Payne committed no error contrary to law and his thorough analysis of the issues deserves deference under Federal Circuit and local precedent. Accordingly, Defendants' objections should be overruled.

I. JUDGE PAYNE CORRECTLY FOUND THAT THE "HOSF" AND "HODF" TERMS ARE LIMITED TO FUNCTIONS "CORRESPONDING TO AN ACCESS ADDRESS OR ACCESS TECHNOLOGY" ('527 PATENT)

Defendants incorrectly argue that the claimed HOSF and HODF do not necessarily correspond to an access address or access technology because the Court's relied-upon language refers to only one embodiment of the invention and not every embodiment. To the contrary, the '527 patent is directed to a "method and a system for maintaining session continuity *when a user changes access address or access technology of a terminal*, or even changes the terminal in a session." '527 Patent at 1:20-24 (emphasis added); *see also id.* at 1:39-42; *id.* at 4:36-45. Huawei captured this inventive concept in the claimed HOSF and HODF.

Contrary to Defendants' arguments, nothing about the language surrounding column 14, lines 18-23¹ suggest that the HOSF and HODF have different meanings in different embodiments. First, in the paragraph containing column 14, lines 18-23, there is no language limiting the description of HOSF and HODF to a particular embodiment. Second, Defendants point to no embodiments where the HOSF and HODF purportedly have a different meaning. Third, even if HOSF and HODF were intended to correspond to specific access technology means or access addresses in a "particular embodiment," that embodiment would cover the claims of the '527 patent. The "present embodiment" language in the preceding paragraph refers to "different implementation plans" and discusses several modes, including "CPandUP-segmented mode" and "CP-segmented mode." *Id.* at 13:63-67. As Defendants already acknowledged in their Responsive *Markman* brief, asserted claim 41 corresponds to CP and UP segmented embodiment and independent claims 1 and 29 correspond to CP-segmented embodiment. (Dkt. No. 125 at 9-10) ("Claims 1 and 29 claim CP-segmented embodiments. . . . [C]laim 41 describes an embodiment where both the HOAF-CP and the HOAF-UP are between the users, meaning that both the control and user planes use segmented connections (*i.e.*, a CPandUP-segmented embodiment).")

Based on the well-reasoned and supported findings in Judge Payne's claim construction order, and Defendants' failure to identify any error of law in the order, the Court should overrule Defendants' objections.

¹ "On the handover user side, the HOSF corresponds to an access module of the access point, or the access technology or the access means before the handover, and the HODF corresponds to another access module of the access point, or another access technology or another access means after the handover." '527 patent, at 14:18-21.

II. “ACQUISITION MODULE” (’261 PATENT)

Judge Payne’s claim construction order correctly found that Defendants failed to demonstrate that the “acquisition module” term is subject to § 112 ¶ 6. Judge Payne found how the words of the claim have “an understood meaning in the art” and thus are not subject to § 112 ¶ 6 construction. (Dkt. No. 228 at 74); *see also* *Chrimar Sys., Inc. v. Adtran, Inc.*, No. 6:15-CV-618-JRG-JDL, 2016 WL 3382028, at *9 (E.D. Tex. June 20, 2016) (“Where a claim term has an understood meaning in the art, it recites sufficient structure.”). Additionally, Judge Payne explained that, “the intrinsic evidence demonstrates that a person of ordinary skill in the art would understand the necessary structure of the ‘acquisition module’ in claim 9 of the ’261 Patent.” (Dkt. No. 228 at 74.)

Defendants’ objections fail to identify any clear factual error or misapplication of the law in Judge Payne’s order, and instead simply re-argue the same rejected evidence previously presented. For example, Defendants again contend that “module” is a well-known nonce word that operates as a substitute for “means.” But Judge Payne considered and rejected this argument, explaining that the descriptions in the specification and claims themselves provided sufficient descriptions for the term “acquisition module.” (Dkt. No. 228 at 74-75.) As Judge Payne explained, the specification teaches that the acquisition module “is adapted to receive . . . an NAS security algorithm supported by the UE,” ’261 Patent at 2:61-65, “acquires the security capability information supported by the UE,” *id.* at 10:50-54, and that it is “included in a mobility management entity (MME),” *id.* at claim 9. As Judge Payne observed, these “examples show that this term has an ‘understood meaning in the art’ and thus [is] not subject to § 112 ¶ 6 construction. (Dkt. No. 228 at 74-75.) The context of the entire specification, including passages discussing the use of an acquisition module in an MME, connotes sufficiently definite structure to a person of skill in the art.

Based on the well-reasoned and supported findings in Judge Payne’s claim construction order, and Defendants’ failure to identify any error of law, the Court should overrule Defendants’ objections.

III. “INFORMATION FOR DETERMINING” CLAUSES (’268 PATENT)

Defendants feign confusion about whether the “information for determining” clause modifies *only* the “security capacities supported by the UE,” or *also* modifies “AV-related keys.” (Dkt. No. 233 at 33.) As Judge Payne explained, the ’268 patent claims are drafted to cover the first embodiment disclosed in the patent, where the MME sends AV-related keys to an SGSN. (Dkt. No. 228 at 46.) The source of Defendants’ confusion—the patent’s second embodiment—teaches that the MME sends a root key K_{asme} to an SGSN, which does not “mirror or even suggest the claim language.” (*Id.*) Thus, a person of skill in the art would understand that the “information for determining” clause only refers to “security capacities supported by the UE.”

Defendants’ own claim construction expert admits that the first and second embodiments address “fundamentally different network structures, and are thus mutually incompatible.” (Dkt. No. 125-9 at 15.) Given that the claims reflect the first embodiment, a person of skill in the art would understand with reasonable certainty that “information for determining” clause does not modify the AV-related keys.

Based on the well-reasoned and supported findings in Judge Payne’s claim construction order, and Defendants’ failure to identify any error of law in the Order, the Court should overrule Defendants’ objections.

IV. “[DERIVING/DERIVES] A NAS PROTECTION KEY . . .” (’261 PATENT)

Defendants object to Judge Payne’s construction of this term arguing that the claims cover the “deriving” step as being performed by the UE and are limited to only the “direct derivation technique” because they “expressly omit” mention of an intermediate root key. (Dkt. No. 233

at 4.) Judge Payne already considered these arguments, finding that the claims recite the derivation step as occurring in the MME and as covering both direct and indirect derivation. (Dkt. No. 228 at 62-65.)

As explained in Huawei's claim construction briefing, there is no indication that the applicant intended to change the actor that performs the "deriving" step by moving the "MME" limitation from the claim body to the preamble. (Dkt. No. 119 at 23; Dkt. No. 135 at 9.)

Moreover, Defendants fail to address a more fundamental point on which Judge Payne's order was grounded: the patent never discloses the AV-related keys CK and IK as being *input* to a selected NAS security algorithm. Rather, it teaches that NAS protection keys ($K_{\text{nas-enc}}$ and $K_{\text{nas-int}}$) are derived *using* the NAS security algorithm as input to a derivation function.

The specification then teaches using a "derivation method" to derive the confidentiality protection key— $K_{\text{nas-enc}} = f(K_{\text{asme}}, \text{NAS confidentiality protection algorithm, other parameters})$ —and a function for deriving the integrity protection key— $K_{\text{nas-int}} = f(K_{\text{asme}}, \text{NAS integrity protection algorithm, other parameters})$. *Id.* at 6:60-7:3. Thus, the specification explicitly states that ***the selected algorithm and AV-key are input to a function to derive the NAS protection key***. See, e.g., '261 Patent at 5:38–40 ("The NAS protection key includes an NAS integrity protection key $K_{\text{nas-int}}$ and/or an NAS confidentiality protection key $K_{\text{nas-enc}}$.").

Dkt. No. 228 at 65 (emphasis added). Thus, Judge Payne's construction of this term—"[deriving/derives] a NAS protection key with the selected NAS security algorithm from the authentication vector related key" should be construed to mean "[deriving/derives] a NAS protection key using the authentication vector-related key and the selected NAS security algorithm"—is correct.

Based on the well-reasoned and supported findings in Judge Payne's claim construction order, and Defendants' failure to identify any error of law in the Order, the Court should overrule Defendants' objections.

Dated: July 20, 2017

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the above and foregoing document has been served on July 20, 2017 to all counsel of record who are deemed to have consented to electronic service via the Court's CM/ECF system per Local Rule CV-5(a)(3).

/s/ David Barkan
David Barkan